

IN THE CLAIMS:

Please amend the claims as set forth in the following Claim Listing:

CLAIM LISTING:

1-37. (Cancelled).

38. (Previously Presented) A perfluorinated thermoplastic resin filtration cartridge comprising:
a housing having an inlet and an outlet; and
one or more membrane filters located between the inlet and the outlet;
sealing means forming a liquid-tight seal between the one or more membrane filters and the outlet;
such that an integral filtration device is formed, wherein all fluid must pass through the one or more membrane filters from the inlet to the outlet;
wherein the seal and the one or more membrane filters are formed of perfluorinated thermoplastic resins,
said membrane formed by thermally induced phase separation from perfluorinated thermoplastic resins,
said resins being selected from the group consisting of poly (tetrafluoroethylene-co-perfluoro (alkylvinylether)), poly (tetrafluoroethylene-co-hexafluoropropylene)) and blends thereof; and
wherein the sealing means has a melting point equal to or less than that of the membrane filter resins;
wherein the membrane is a depth filter formed of one or more wound fibers.

39 – 64. (Cancelled).

65. (Previously Presented) The cartridge of claim 38, wherein the perfluorinated thermoplastic polymer is poly (tetrafluoroethylene)-co-perfluoro (alkylvinylether)) and the alkyl is selected from the group consisting of propyl, methyl and blends of propyl and methyl.

66. (New) A filter cartridge comprising:
a housing having an inlet and an outlet, and
one or more hollow fiber filtration membranes located between the inlet and the outlet of the cartridge,
wherein a liquid tight seal is provided between the membranes and the cartridge such that all fluid must pass through the one or more membranes from the cartridge inlet to the outlet,
wherein the liquid tight seal comprises potting material that forms a unitary integral block, filling interstitial spaces between the membranes and bonding to surface pores of the membranes, and
wherein the potting material and the membranes are formed of perfluorinated thermoplastic resin.

67. (New) The filter cartridge of Claim 66, wherein the filter cartridge comprises a cylindrical form.

68. (New) The filter cartridge of Claim 66, wherein the liquid tight seal prevents fluid entering the housing from mixing with filtered fluid exiting the housing.

69. (New) The filter cartridge of Claim 66, wherein the potting material has a lower melting temperature than the melting or softening temperature of the material used to make the membrane.

70. (New) The filter cartridge of Claim 69, wherein the melting or softening temperature of the potting material is at least about 5°C lower than the melting temperature of the material used to make the membrane.

71. (New) The filter cartridge of Claim 69, wherein the melting temperature of the seal material is at least about 10°C lower than the melting or softening temperature of the material used to make the membrane.

72. (New) The filter cartridge of Claim 66, further comprising one or more end caps for the housing wherein the end caps are formed of perfluorinated thermoplastic resin.

73. (New) The filter cartridge of Claim 72, wherein each end cap is liquid tightly joined to an end of the housing.

74. (New) The filter cartridge of Claim 73, wherein the end caps and the housing form a unitary end structure.

75. (New) The cartridge of claim 66, wherein the membrane is selected from the group consisting of hollow fibers, flat sheets and wound fibers.

76. (New) The filter cartridge of Claim 66, wherein the membrane filter is a pleated membrane.

77. (New) The filter cartridge of Claim 76, wherein the pleated membrane is supported by a perfluorinated thermoplastic fabric.

78. (New) The filter cartridge of Claim 66, wherein the membrane is a

microporous membrane.

79. (New) The filter cartridge of Claim 66, wherein the membrane is an ultrafiltration membrane.

80. (New) The filter cartridge of Claim 66, wherein the membrane is in the form of a flat sheet, the flat sheet membranes being formed into a shape selected from the group consisting of pleats, spirals and discs.

81. (New) The filter cartridge of Claim 66, wherein the perfluorinated thermoplastic resin is poly (TFE-co-PFAVE).

82. (New) The filter cartridge of Claim 66, wherein the perfluorinated thermoplastic resin is selected from the group consisting of poly(tetrafluoroethylene-co-perfluoro (alkylvinylether)), poly (tetrafluoroethylene-co-hexafluoropropylene), and blends thereof.

83. (New) The filter cartridge of Claim 82, wherein the perfluorinated thermoplastic polymer is poly (tetrafluoroethylene)-co-perfluoro (alkylvinylether), and the alkyl is selected from the group consisting of propyl, methyl and blends of propyl and methyl.

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